

**REMARKS/ARGUMENTS**

Claims 1, 3 through 17, and 20 through 29 are pending in the application. Claims 2, 18 and 19 are canceled by previous Amendment. Claims 12, 17, and 22 have been cancelled by this Amendment. Claims 11, 14, and 20 have been amended by this Amendment. No new matter has been introduced by the amendments.

Claim 11 has been amended to incorporate features of claim 12, except for cellulose and carboxymethyl cellulose (CMC). Claim 14 has been amended to incorporate features of claim 17. Claim 20 has been amended to incorporate features of claim 22.

Applicant acknowledges with appreciation the withdrawal of the objection to claim 12.

Claims 1, 3 through 12, 20 through 22, 24 through 26 are rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 6,270,873 to Darnett.

Darnett describes absorbent food pads used as a biofluid absorber that is placed between meat and a plastic meat tray and also as a cooling pads which is swollen with water, frozen, and then placed with food to keep it cool (col. 1, lines 60-62). The absorbent pads have a top sheet and a bottom sheet which are

joined to form at least one cell or pouch having an absorbent material in between, and at least one of the sheets is liquid impermeable but has microperforations allowing fluid to pass through the microperforations and into the cell (col. 1, line 65 to col. 2, line 4). Figures 1 – 3 and 7 – 9 are identified in Darnett as particularly suitable for absorbing biofluids, the pads differing in the size of the cells and the type of bottom sheet (col. 6, lines 13 – 19). Each absorbent pad disclosed and illustrated by Darnett has an overall rectangular shape of the periphery of the pad (see, e.g., Figures 1a, 2a, 3a, 4a, 5a, 6a, 7a, 8a, 9a, 10a, 11a, 12a, 13a, 14a, 15a, 16a, 17a, and 20a).

Claim 1 recites an absorbent food pad comprising a top sheet; a bottom sheet; and one or more islands disposed between the top sheet and the bottom sheet. The absorbent food pad has one or more complex shapes selected from the group consisting of circle, oval, oblong, polygon, trapezoid, triangle, donut-shaped, cone, rod, and any combinations thereof.

In the Office Action, Darnett is implied to teach an absorbent pad having a complex shape that is lent by the shape of the island viewed. However, Applicants respectfully disagree that Darnett discloses absorbent pads in the shape of a circle, oval, oblong, polygon, trapezoid, triangle, donut-shaped, cone, rod and any combinations of these. Claim 1, as previously amended, does not simply recite an absorbent food pad having a “complex shape”; rather, the complex shapes are limited to the group selected from circle, oval, oblong,

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polygon, trapezoid, triangle, donut-shaped, cone, rod, and their combinations. The plain meaning of the recited shapes of the absorbent pads is the outer contour of the periphery of the absorbent pad, rather than a side view, as suggested in the office action. For example, a "donut-shaped" absorbent pad would be understood in the art to represent an absorbent pad having a circular outer shape with a circular cutout in the center when seen from a top view. In the event that further clarification were sought, the person could look at Figure 6 to see what is meant by "donut-shaped," and that the shape is determined by a top view. By contrast, Darnett illustrates numerous examples of his pads, but every one of them is shown (in top view) having a rectangular periphery, with four square corners that meet at 90° angles. As a practical matter, the first object of the present invention is to provide an absorbent pad that can be manufactured in shapes other than a square or rectangle. Even if, at best, the "bulges" created by the pouches in Darnett's pads could be considered as creating a "complex shape," there is no logical reason provided in Darnett to label such a pad having such bulges as a circle, oval, oblong, polygon, trapezoid, triangle, donut-shaped, cone, or rod. For these reasons, applicant respectfully submits that Darnett fails to anticipate claim 1, and requests reconsideration and withdrawal of the §102(b) rejection.

For the same reason as provided for the independent claim, applicant maintains that Darnett fails to anticipate dependent claims 3 through 10, and

respectfully requests reconsideration and withdrawal of the §102(b) rejection of these claims.

Independent claim 11 recites an absorbent pad having a top sheet; a bottom sheet; and two or more islands disposed between the top sheet and the bottom sheet. The two or more islands are separated by a barrier layer formed from one or more materials selected from polyvinyl alcohol (PVA), chitosan, alginate, pectin, polyamide, starch, and any combinations of these. The barrier layers made of cellulose and carboxymethyl cellulose (CMC) have not been incorporated by this Amendment into claim 11.

Darnett is summarized above. Of relevance to claim 11, Darnett further describes absorbent pads having an additional, "barrier" sheet, provided below the microperforated sheet, to reduce any egress of the absorbent material out of the cells (pouches) within the absorbent pad (col. 3, lines 43 – 55). Darnett discloses that "various types of papers" can be used as the barrier sheet (col. 3, line 48).

Darnett's "barrier" sheet does not anticipate the "barrier" layer of claim 11, even though both use the same adjective. The barrier layer recited in claim 11 are nonwovens or films that are intended to initially protect "actives" from oxygen or moisture or other actives, but then these layers are made of materials that break down or dissolve to release the actives when the absorbent pad is put into

use (see page 9, line 24 to page 10, line 16). The materials used in such "dissolving films," polyvinyl alcohol (PVA), chitosan, alginate, pectin, polyamide, cellulose, and starch (page 10, lines 8 – 10) are not disclosed by Darnett as materials for a barrier sheet. On the other hand, Darnett discloses a barrier sheet that is intended to reduce egress of the absorbent from the cells in the pad (col. 3, lines 43 – 44); i.e., Darnett discloses a barrier sheet that is meant to serve as a mechanical barrier and not to break down or dissolve (which would defeat at least one of the stated goals of the barrier sheet, reducing egress of the absorbent). For these reasons, applicant submits that Darnett does not anticipate claim 11, and respectfully requests reconsideration and withdrawal of the §102(b) rejection.

Claim 12 has been canceled by this Amendment, thus mooted the §102(b) rejection thereto.

Dependent claim 13 is not anticipated by Darnett for the reasons provided for the independent claim. Applicant requests reconsideration and withdrawal of the §102(b) rejection.

Claims 20 through 24 are rejected over Darnett under §102(b) or §103(a).

Independent claim 20 recites an absorbent pad having a top sheet, a bottom sheet, an island disposed between the top sheet and bottom sheet, and

one or more fluid channels, wherein the top sheet and bottom sheet are intermittently sealed together to form the one or more fluid channels.

Darnett is summarized above. Of relevance to claims 20 through 24, the Action asserts that Darnett's absorbent pads form "channels for transporting liquids" in the areas between pouches where the top sheet and bottom sheet are sealed together.

Darnett fails to disclose or suggest fluid channels of the kind recited in claims 20 through 24. The fluid channels recited in present claim 20 are formed by **intermittently** heat-sealing the top sheet and bottom sheet, by allowing one layer or by leaving a void between sealed areas, thereby creating channels for fluid to flow from the external surface into the interior of the pad and the absorbent material (page 12, lines 9 – 14 and lines 20 – 23). It is the unsealed areas from the intermittent sealing that provide the fluid channels in claim 20.

This is quite different in at least two respects from Darnett's "channels" for transporting liquids, which are **sealed** sections of the top and bottom sheets that form "valleys" between the pouches on the **external** parts (only) for fluids to flow. In addition, the person of skill would not have been motivated to modify Darnett's exterior valleys between the sealed pouches to leave open areas inside the pad as fluid channels; since such a modification would have defeated Darnett's objective to keep the pouches sealed to reduce egress of absorbent material from inside the pouches. Accordingly, applicant respectfully submits that

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Darnett fails to disclose or suggest claim 20, and requests that the rejection under §102(b) be withdrawn.

For the same reasons as provided for the independent claim, applicant requests reconsideration and withdrawal of the rejections to dependent claims 21, 23, and 24 brought under §102(b) or §103(a).

Claim 22 is canceled by this amendment, thereby mooted this rejection. Applicant requests that the §102(b) rejection be withdrawn.

Claims 25 and 26 are rejected over Darnett under §102(b).

Independent claim 25 recites a top sheet, bottom sheet, and one or more islands disposed between the top and bottom sheets where the top sheet and/or bottom sheet have a "predetermined pattern of perforations resulting in one or more zones for increased and/or decreased fluid uptake."

Dependent claim 26 recites the absorbent pad according to claim 25, adding the feature that the perforations vary in diameter across the predetermined pattern of perforations.

Darnett is summarized above. Of relevance to claims 25 and 26, Darnett discloses an absorbent pad having a top sheet and bottom sheet joined to form

at least one cell where the top sheet and/or bottom sheet have perforations (col. 1, line 65 to col. 2, line 24) which are "typically spread across the sheet in a substantially homogeneous fashion" (col. 2, lines 25 – 26).

The Office Action argues that Darnett teaches varying the microperforation size and shape to complement the type of absorbent used, and that the variation can exist in a single sheet, defining a pre-determined pattern. Applicant respectfully disagrees, and submits that Darnett never discloses an absorbent pad with **varying patterns** of perforation that **result in zones having increased or decreased fluid uptake** as recited in the independent claim (as contrasted with top or bottom sheets having a uniform pattern of perforations). Because the pads are intended for use with foods, the difference in the patterns of perforations is important, because the various perforation "zones" can be designed in such a way as to promote certain properties of the absorbent pad, such as minimizing desiccation effects where food contacts the absorbent pad, or maximizing fluid absorption nearer to the perimeter. The absence of disclosure or even suggestion in Darnett that the perforations should be arranged to form zones having increased or decreased fluid uptake is a distinguishable difference.

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Claim 26 is distinguished over Darnett for the same reason as provided for independent claim 25.



Accordingly, for the reasons above, Applicant requests reconsideration and withdrawal of the rejections to claims 25 and 26 brought under §102(b).

Claims 27, 28, and 29 are rejected under 35 U.S.C. §103(a) as obvious over Darnett. [The 103(a) rejection of Claim 23 was discussed above]

Darnett is summarized above.

Independent claim 27 recites an absorbent pad having a top sheet, bottom sheet, one or more islands disposed between the top and bottom sheets where the top sheet and/or bottom sheet comprises a metallocene polyethylene.

The Office Action acknowledges that Darnett does not teach a metallocene polyethylene, but asserts that metallocene polyethylene constitutes "product-by-process" claim language. The Response to Arguments adds that metallocene refers to the catalyst employed for the production of the polyethylene film, and constitutes product-by-process language that is obvious over Darnett. However, Applicant respectfully disagrees with this interpretation of the claim language, and submits that claim 27 recites **a top sheet and/or bottom sheet that comprises a metallocene polyethylene**, and thus does not recite metallocene as a reactant or catalyst in a "process" to make an absorbent pad, and, as Darnett does not suggest a top sheet and/or bottom sheet with metallocene polyethylene, the claim language in claim 27 does not recite

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product-by-process language that is suggested by Darnett. In the absence of some sort of suggestion to do so, there would not have been a motivation to modify Darnett to add metallocene polyethylene to the top sheet and/or bottom sheet because it would add cost to the pad. Applicant therefore respectfully requests reconsideration and withdrawal of the rejection to claim 27 brought under §103(a).

Claims 28 and 29 are rejected under §103(a) as obvious over Darnett, or the combination of Darnett and U.S. Patent No. 4,048,361 to Valyi.

Darnett teaches that the absorbent pad can be formed by heat sealing the top sheet and bottom sheet together, preferably where the top sheet and bottom sheet are made of heat meltable materials, or to glue the sheets together (col. 5, lines 1 – 8), but does not disclose or suggest electrostatically holding pouches in place (without using adhesive) prior to sealing. Valyi teaches a composite material having improved resistance to permeation, especially gas permeation (col. 1, lines 63 – 67), where the first layer is a sheet-like laminate having resistance to permeation (representative examples are “grease-proof” and “glassine” papers), and a second layer that is a carrier layer, and the two layers can be adhered one to the other by any means, as by adhesive or by electrostatic bonding (col. 3, lines 9 – 14, 25).

Independent claim 28 recites a method for assembling an absorbent pad having a top sheet, bottom sheet, and one or more islands disposed between the top and bottom sheets, where the method comprises the steps of disposing one or more islands between the top sheet and bottom sheet; electrostatically adhering the top sheet to the bottom sheet; and sealing the electrostatically adhered top sheet and bottom sheet together, where the absorbent pad is assembled without the use of glue or adhesives.

The Office Action states that, while Darnett does not teach electrostatically holding pouches in place prior to sealing without adhesive, the method of holding the pouches in place electrostatically or corona treating the top or bottom sheet is an "alternate method" of sealing the pouches "producing an identical product."

The rejection over Darnett, then, appears to consider the language in claim 27 the equivalent of a product-by-process claim. However, claim 28 is a **method of making** an absorbent pad, and is not claiming the product itself or a product-by-process claim. The step of electrostatically adhering the top sheet to the bottom

sheet before sealing, without the use of glue or adhesives, is a definable advantage and a relevant step and feature in the claimed method. Darnett fails to disclose or suggest the steps of: electrostatically adhering the top sheet to the bottom sheet, and sealing the electrostatically adhered top sheet and bottom sheet together, without the use of glue or adhesives. Valyi neither supplements these deficiencies in Darnett, nor is there any suggestion why a person of skill in

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the art would have been motivated to modify Darnett with Valyi, when the types of materials, and uses of the products are not aligned.

Claim 29 distinguishes over Darnett, taken alone or in combination with Valyi, for the same reasons as provided for independent claim 28.

Accordingly, applicant submits that Darnett, taken alone or in combination with Valyi, does not disclose or suggest claims 28 or 29, and respectfully requests reconsideration and withdrawal of the rejections brought under §103(a).

Claim 13 stands rejected under 35 U.S.C. §103(a) as obvious over Darnett in view of U.S. Patent No. 6,926,862 [patent number is transposed in the Action] to Fontenot, et al. ("Fontenot").

Darnett is described above. Fontenot provides a container liner, a shelf liner, or drawer liner having a layer that is impervious to liquids, and an absorbent layer that contains an odor-absorbing material (col. 3, lines 19 – 30). The Action asserts that it would have been obvious to one of ordinary skill in the art to provide antifungal means as taught by Fontenot to the absorbent pad taught by Darnett, as both are "used in direct contact with food."

Claim 13 provides that the two or more islands of claim 11 comprise at least one active selected from the group consisting of antimicrobial agent,

sanitizing agent, oxygen scavenger, CO<sub>2</sub> emitter, ethylene scavenger, surface-active agent, and any combinations thereof.

As acknowledged in the Office Action, Darnett does not disclose that pouches contain "active" agents among those types of actives recited in claim 13. Also, Darnett does not suggest any reason that would have motivated a person of ordinary skill in the art to add an active into the pouches or cells of an absorbent pad with a reasonable prospect of success. Indeed, Darnett provides for the use of absorbent materials or water (to freeze for use as a cooling pad) inside the pouches, but fails to present any unmet need for any of the above-listed "actives" to be added into the pouches. Adding actives to the pouches in Darnett would add cost to the absorbent pads, and could interfere with the proper absorbency or freezing of the superabsorbent materials Darnett discloses as inside the pouches. In the absence of a suggestion, there would have been no reason for a person of skill in the art to seek out drawer liners or shelf liners in Fontenot to combine with Darnett to arrive at claim 13. For these reasons, applicant submits that Darnett, taken alone or in combination with Fontenot, would not render obvious claim 13. Accordingly, Applicant requests reconsideration and withdrawal of the §103(a) rejection of claim 13.

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Claims 14 through 17 are rejected under §103(a) over Darnett in view of U.S. Patent No. 5,320,895 to Larssonneur.

Darnett provides a bottom sheet and pouches containing absorbent material, but does not disclose one or more side panels hingeably connected to the bottom sheet. Larssonneur provides an absorbent pad having side edges 110,112 comprised of a top sheet 102 and bottom sheet 106 sealed together to enclose an absorbent mat 104. The absorbent pad has a sealed edge that is flexible and can bend up along the sides of a tray.

Independent claim 14 now recites an absorbent pad having a base panel and one or more side panels hingeably connected to the base panel, wherein the one or more side panels each further have a top sheet, bottom sheet, and one or more islands disposed between the top and bottom sheets.

As acknowledged in the Office Action, Darnett does not disclose one or more side panels hingeably connected to the bottom sheet. ~~Larssonneur side panels are simply sealed edges, somewhat akin to little tags, that are flexible enough to bend up alongside the walls of the container. However, the side panels in Larssonneur, such as they are, do not have anything that resembles an island disposed between the top and bottom sheet. Thus, at best, even if Larssonneur is combined with Darnett, the combination does not disclose or suggest present claim 14.~~

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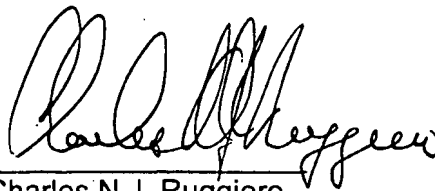
Accordingly, Darnett, taken alone or in combination with Larssonneur, does not render claim 14 obvious. Therefore, applicant respectfully requests

reconsideration and withdrawal of the rejection to claims 14 through 16 under §103(a).

Claim 17 is canceled by this amendment, mooted the rejection thereto. Thus, applicant requests that the rejection to claim 17 under §103(a) be withdrawn.

In view of the above, applicant respectfully submits that the claims are patentably distinguishable over the cited art, taken alone or in combination. As such, reconsideration and withdrawal of all claim rejections are respectfully requested. In the alternative, applicant requests that this Amendment be entered, as it places the application in better condition for appeal.

Respectfully submitted,



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